

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

1. (Withdrawn) A cosmetic or pharmaceutical composition comprising
 - A) at least one ampholytic copolymer obtainable by free-radical copolymerization of
 - a) at least one compound with a free-radically polymerizable, α,β -ethylenically unsaturated double bond and at least one anionogenic and/or anionic group per molecule,
 - b) at least one compound with a free-radically polymerizable, α,β -ethylenically unsaturated double bond and at least one cationogenic and/or cationic group per molecule,
 - c) at least one α,β -ethylenically unsaturated amide-group-containing compound of the formula I



in which

one of the radicals R^1 to R^3 is a group of the formula $\text{CH}_2=\text{CR}^4-$ where R^4 = H or $\text{C}_1\text{-C}_4$ -alkyl, and the other radicals R^1 to R^3 , independently of one another, are H, alkyl, cycloalkyl, heterocycloalkyl, aryl or hetaryl,

where R^1 and R^2 together with the amide group to which they are bonded may also be a lactam with 5 to 8 ring atoms,

where R^2 and R^3 together with the nitrogen atom to which they are bonded may also be a five-to seven-membered heterocycle,

with the proviso that the sum of the carbon atoms of the radicals R^1 , R^2 and R^3 is at most 8, where component c) is chosen from N-vinylamides of

saturated monocarboxylic acids, N-vinylactams, N-alkyl- and N,N-dialkylamides of α,β -ethylenically unsaturated monocarboxylic acids and mixtures thereof, or a polyelectrolyte complex comprising at least one of said amphoteric copolymers and at least one further polyelectrolyte different therefrom, and

B) at least one cosmetically acceptable carrier.

2. (Withdrawn) A composition as claimed in claim 1, where the quantitative molar ratio of compounds a) to compounds b) is in a range from 0.5:1 to less than 2:1, preferably from 0.7:1 to 1.8:1.

3. (Withdrawn) A composition as claimed in claim 1, where at least some of the compounds a) and b) are used in the form of a monomer composition, where the molar ratio of anionogenic groups of component a) to cationogenic groups of component b) is about 1:1.

4. (Withdrawn) A composition as claimed in claim 1, which additionally comprises, in copolymerized form, at least one further monomer d) which is chosen from esters of α,β -ethylenically unsaturated mono-and dicarboxylic acids with C_1-C_{30} -alkanols and C_1-C_{30} -alkanediols, amides of α,β -ethylenically unsaturated mono-and dicarboxylic acids with C_2-C_{30} -aminoalcohols which have a primary or secondary amino group, N-alkyl-and N,N-dialkylamides of α,β -ethylenically unsaturated monocarboxylic acids which, in addition to the carbonyl carbon atom of the amide group, have more than 8 further carbon atoms, esters of vinyl alcohol and allyl alcohol with C_1-C_{30} -monocarboxylic acids, vinyl ethers, vinylaromatics, vinyl halides, vinylidene halides, C_1-C_8 -monoolefins, nonaromatic hydrocarbons with at least two conjugated double bonds, siloxane macromers and mixtures thereof.

5. (Withdrawn) A composition as claimed in claim 1, which additionally comprises, as component e), at least one polyether acrylate in copolymerized form.

6. (Withdrawn) A composition as claimed in claim 1, which is obtainable by free-radical copolymerization in the presence of a component g) which is chosen from

- g1) polyether-containing compounds,
- g2) polymers which have at least 50% by weight of repeat units which are derived from vinyl alcohol,
- g3) cellulose, starch and derivatives thereof,

and mixtures thereof.

7. (Withdrawn) A composition as claimed in claim 1, where component a) is chosen from monoethylenically unsaturated carboxylic acids, sulfonic acids, phosphonic acids and mixtures thereof.

8. (Withdrawn) A composition as claimed in claim 7, where component a) is chosen from acrylic acid, methacrylic acid, ethacrylic acid, α -chloroacrylic acid, crotonic acid, maleic acid, maleic anhydride, fumaric acid, itaconic acid, citraconic acid, mesaconic acid, glutaconic acid, aconitic acid, vinylsulfonic acid, allylsulfonic acid, sulfoethyl acrylate, sulfoethyl methacrylate, sulfopropyl acrylate, sulfopropyl methacrylate, 2-hydroxy-3-acryl-oxy-propylsulfonic acid, 2-hydroxy-3-methacryloxy-propylsulfonic acid, styrenesulfonic acid, 2-acryl-amido-2-methylpropanesulfonic acid, vinyl-phosphonic acid and allylphosphonic acid and mixtures thereof.

9. (Withdrawn) A composition as claimed in claim 8, where component a) is chosen from acrylic acid, methacrylic acid and mixtures which comprise acrylic acid and/or methacrylic acid.

10. (Withdrawn) A composition as claimed in claim 8, where component a) is chosen from 2-acrylamido-2-methylpropane-sulfonic acid and mixtures which comprise this.

11. (Withdrawn) A composition as claimed in claim 1, where component b) is chosen from esters of α,β -ethylenically unsaturated mono- and dicarboxylic acids with amino alcohols which may be mono- or dialkylated on the amine nitrogen, amides of α,β -

ethylenically unsaturated mono- and dicarboxylic acids with diamines which have at least one primary or secondary amino group, N,N-diallylamine, N,N-diallyl-N-alkylamines and derivatives thereof, vinyl- and allyl-substituted nitrogen heterocycles, vinyl- and allyl-substituted heteroaromatic compounds and mixtures thereof.

12. (Withdrawn) A composition as claimed in claim 11, where component b) is chosen from N,N-dimethylaminoethyl (meth)acrylate, N,N-dimethylaminopropyl (meth)acrylate, vinylimidazole, N-[3-(dimethylamino)propyl](meth)acrylamide, N-[tert-butyl]-aminoethyl (meth)acrylate, N,N-diallylamine, N,N-diallyl-N-methylamine and mixtures thereof.

13. (Withdrawn) A composition as claimed in claim 1 where component c) is chosen from primary amides of α,β -ethylenically unsaturated mono-carboxylic acids, N-vinylamides of saturated monocarboxylic acids, N-vinylactams, N-alkyl- and N,N-dialkylamides of α,β -ethylenically unsaturated monocarboxylic acids and mixtures thereof.

14. (Withdrawn) A composition as claimed in claim 13, where component c) is chosen from acrylamide, meth-acrylamide, N-vinylpyrrolidone, N-vinyl-capro-lactam, N-vinylformamide, N-vinylacetamide and mixtures thereof.

15. (Withdrawn) A composition as claimed in claim 1, which additionally comprises, in copolymerized form, at least one free-radically polymerizable crosslinking compound f with at least two α,β -ethylenically unsaturated double bonds per molecule.

16 - 26. (Cancelled).

27. (Withdrawn) A composition as claimed in claim 1, where component B) is chosen from

- i) water,
- ii) water-miscible organic solvents, preferably C₁-C₄-alkanoles,

- iii) oils, fats, waxes,
- iv) esters of C₆-C₃₀-monocarboxylic acids with mono-, di- or trihydric alcohols different from iii),
- v) saturated acyclic and cyclic hydrocarbons,
- vi) fatty acids,
- vii) fatty alcohols

and mixtures thereof.

28. (Withdrawn) A composition as claimed in claim 1, further comprising at least one constituent different from component A) which is chosen from cosmetically active ingredients, emulsifiers, surfactants, preservatives, perfume oils, thickeners, hair polymers, hair and skin conditioners, graft polymers, water-soluble or dispersible silicone-containing polymers, light protection agents, bleaches, gel formers, care agents, colorants, tinting agents, tanning agents, dyes, pigments, bodying agents, moisturizers, refatting agents, collagen, protein hydrolyzates, lipids, antioxidants, defoamers, antistats, emollients and softeners.

29. (Withdrawn) A composition as claimed in claim 1, in the form of a gel, foam, spray, an ointment, cream, emulsion, suspension, lotion, milk or paste.

30. (Currently Amended) An ampholytic copolymer obtainable by free-radical copolymerization of

- a) at least one compound with a free-radically polymerizable, α,β -ethylenically unsaturated double bond and at least one anionogenic and/or anionic group per molecule,
- b) at least one compound with a free-radically polymerizable, α,β -ethylenically unsaturated double bond and at least one cationogenic and/or cationic group per molecule,
- c) at least one α,β -ethylenically unsaturated amide-group-containing compound selected from the group consisting of acrylamide, methacrylamide, N-

vinylypyrrolidone, N-vinylcaprolactam, N-vinylformamide, N-vinylacetamide and mixtures thereof,

where the quantitative molar ratio of compounds a) to compounds b) is from 0.5:1 to less than 2:1.

of the formula I



in which

~~one of the radicals R¹ to R³ is a group of the formula CH₂=CR⁴ where R⁴ = H or C₁-C₄-alkyl, and the other radicals R¹ to R³, independently of one another, are H, alkyl, cycloalkyl, heterocycloalkyl, aryl or hetaryl,~~

~~where R¹ and R² together with the amide group to which they are bonded may also be a lactam with 5 to 8 ring atoms,~~

~~where R² and R³ together with the nitrogen atom to which they are bonded may also be a five to seven membered heterocycle,~~

~~with the proviso that the sum of the carbon atoms of the radicals R¹, R² and R³ is at most 8, where component c) is chosen from N-vinylamides of saturated monocarboxylic acids, N-vinylactams, N-alkyl- and N,N-dialkylamides of α,β-ethylenically unsaturated monocarboxylic acids and mixtures thereof.~~

31. (Original) A polyelectrolyte complex comprising at least one amphotropic copolymer, as defined in claim 30, and at least one further polyelectrolyte different therefrom.

32 - 35. (Cancelled).

36. (New) The amphotytic copolymer as claimed in claim 30, where the quantitative molar ratio of compounds a) to compounds b) is in a range from 0.7:1 to 1.8:1.

37. (New) The composition as claimed in claim 30, where at least some of the compounds a) and b) are used in the form of a monomer composition, where the molar ratio of anionogenic groups of component a) to cationogenic groups of component b) is about 1:1.

38. (New) The composition as claimed in claim 30, which additionally comprises, in copolymerized form, at least one further monomer d) selected from the group consisting of esters of α,β -ethylenically unsaturated mono- and dicarboxylic acids with C_1-C_{30} -alkanols and C_1-C_{30} -alkanediols, amides of α,β -ethylenically unsaturated mono- and dicarboxylic acids with C_2-C_{30} -aminoalcohols which have a primary or secondary amino group, N-alkyl- and N,N-dialkylamides of α,β -ethylenically unsaturated monocarboxylic acids which, in addition to the carbonyl carbon atom of the amide group, have more than 8 further carbon atoms, esters of vinyl alcohol and allyl alcohol with C_1-C_{30} -monocarboxylic acids, vinyl ethers, vinylaromatics, vinyl halides, vinylidene halides, C_1-C_8 -monoolefins, nonaromatic hydrocarbons with at least two conjugated double bonds, siloxane macromers and mixtures thereof.

39. (New) The composition as claimed in claim 30, which additionally comprises, as component e), at least one polyether acrylate in copolymerized form.

40. (New) The composition as claimed in claim 30, which is obtainable by free-radical copolymerization in the presence of a component g) which is selected from the group consisting of

g1) polyether-containing compounds,

g2) polymers which have at least 50% by weight of repeat units which are derived from vinyl alcohol,

g3) cellulose, starch and derivatives thereof,
and mixtures thereof.

41. (New) The composition as claimed in claim 30, where component a) is selected from the group consisting of monoethylenically unsaturated carboxylic acids, sulfonic acids, phosphonic acids and mixtures thereof.

42. (New) The composition as claimed in claim 30, where component a) is selected from the group consisting of acrylic acid, methacrylic acid, ethacrylic acid, α -chloroacrylic acid, crotonic acid, maleic acid, maleic anhydride, fumaric acid, itaconic acid, citraconic acid, mesaconic acid, glutaconic acid, aconitic acid, vinylsulfonic acid, allylsulfonic acid, sulfoethyl acrylate, sulfoethyl methacrylate, sulfopropyl acrylate, sulfopropyl methacrylate, 2-hydroxy-3-acryloxy-propylsulfonic acid, 2-hydroxy-3-methacryloxypropylsulfonic acid, styrenesulfonic acid, 2-acrylamido-2-methylpropanesulfonic acid, vinyl-phosphonic acid and allylphosphonic acid and mixtures thereof.

43. (New) A composition as claimed in claim 42, where component a) is selected from the group consisting of acrylic acid, methacrylic acid and mixtures which comprise acrylic acid and/or methacrylic acid.

44. (New) A composition as claimed in claim 42, where component a) is selected from the group consisting of 2-acrylamido-2-methylpropanesulfonic acid and mixtures which comprise this.

45. (New) The composition as claimed in claim 30, where component b) is selected from the group consisting of esters of α,β -ethylenically unsaturated mono- and dicarboxylic acids with amino alcohols which may be mono- or dialkylated on the amine nitrogen, amides of α,β -ethylenically unsaturated mono- and dicarboxylic acids with diamines which have at least one primary or secondary amino group, N,N-diallylamine,

N,N-diallyl-N-alkylamines and derivates thereof, vinyl- and allyl-substituted nitrogen heterocycles, vinyl- and allyl-substituted heteroaromatic compounds and mixtures thereof.

46. (New) A composition as claimed in claim 45, where component b) is selected from the group consisting of N,N-dimethylaminoethyl (meth)acrylate, N,N-dimethylaminopropyl (meth)-acrylate, vinylimidazole, N-[3-(dimethylamino)propyl](meth)acrylamide, N-(tert-butyl)aminoethyl(meth)acrylate, N,N-diallylamine, N,N-diallyl-N-methylamine and mixtures thereof.

47. (New) The composition as claimed in claim 30, which additionally comprises, in copolymerized form, at least one free-radically polymerizable crosslinking compound f) with at least two α,β -ethylenically unsaturated double bonds per molecule.